

IN THE CLAIMS:

Claims 1-58 (Canceled).

59. (Previously Presented) A flexible vascular graft for connecting to a blood vessel, said vascular graft comprising a flexible wall that forms a passageway for blood flow through the vascular graft, a first drug layer at least partially coated on an inner surface of said flexible wall and an inner layer, said inner layer formed of a porous material designed to promote endothelialization, said first drug layer including at least one drug and a flexible and substantially biologically inert amphiphilic block copolymer, said amphiphilic block copolymer having a structure that controllably releases up to about 90 percent of at least one of said drugs into said inner layer within about thirty days of being connected to the blood vessel, said amphiphilic block copolymer including a network including both hydrophobic and hydrophilic polymer chains that can swell in both hydrophobic and hydrophilic solvents, said at least one drug formulated to inhibit stenosis, vascular narrowing, thrombosis or combinations thereof.

60. (Previously Presented) The flexible vascular graft as defined in claim 59, wherein said flexible wall includes a biostable fabric material, said biostable fabric material including a material selected from the group consisting of polyester, polytetrafluoroethylene, polyurethane, polysilicones, poly(meth)acrylates, polyalkyl oxides, polyvinyl alcohols, polyalkylene glycols, polyvinyl pyrrolidone or combinations thereof.

61. (Previously Presented) The flexible vascular graft as defined in claim 59, wherein said amphiphilic block copolymer includes macromolecular mers of polyethylene glycol,

poly(isobutylene), and poly(dimethylsiloxane).

62. (Previously Presented) The flexible vascular graft as defined in claim 60, wherein said amphiphilic block copolymer includes macromolecular mers of polyethylene glycol, poly(isobutylene), and poly(dimethylsiloxane).

63. (Previously Presented) The flexible vascular graft as defined in claim 59, wherein said inner layer includes collagen.

64. (Previously Presented) The flexible vascular graft as defined in claim 62, wherein said inner layer includes collagen.

65. (Previously Presented) The flexible vascular graft as defined in claim 59, wherein the drug in said first drug layer includes trapidil and GM-CSF.

66. (Previously Presented) The flexible vascular graft as defined in claim 64, wherein the drug in said first drug layer includes trapidil and GM-CSF.

67. (Previously Presented) The flexible vascular graft as defined in claim 59, including a barrier layer to inhibit release of at least one of said drugs from said first drug layer into said inner layer, said barrier layer including parylene or a derivative thereof.

68. (Previously Presented) The flexible vascular graft as defined in claim 66, including a barrier layer to inhibit release of at least one of said drugs from said first drug layer into said inner layer, said barrier layer including parylene or a derivative thereof.

69. (Previously Presented) The flexible vascular graft as defined in claim 59, wherein said amphiphilic block copolymer has a structure that controllably releases up to about 90 percent of at least one of said drugs from said first drug layer into said inner layer within about six hours of being connected to the blood vessel.

70. (Previously Presented) The flexible vascular graft as defined in claim 59, including a first penetration barrier layer to inhibit penetration of blood through said vascular graft.

71. (Previously Presented) The flexible vascular graft as defined in claim 68, including a first penetration barrier layer to inhibit penetration of blood through said vascular graft.

72. (Previously Presented) The flexible vascular graft as defined in claim 59, including a second drug layer positioned on said vascular graft to release at least one drug into tissues surrounding said vascular graft.

73. (Previously Presented) The flexible vascular graft as defined in claim 71, including a second drug layer positioned on said vascular graft to release at least one drug into tissues surrounding said vascular graft.

74. (Previously Presented) The flexible vascular graft as defined in claim 72, wherein at least one drug in said second drug layer is not included in said first drug layer.

75. (Previously Presented) The flexible vascular graft as defined in claim 72, including a drug barrier layer to inhibit release of at least one drug from said second drug layer.

76. (Previously Presented) The flexible vascular graft as defined in claim 74, including a drug barrier layer to inhibit release of at least one drug from said second drug layer.

77. (Currently Amended) A stent for insertion into a blood vessel, said stent comprising an expandable wall structure that forms a passageway for blood flow through the stent, a first drug layer at least partially coated on said expandable wall structure and an inner layer, said inner layer formed of a porous material designed to promote endothelialization, said first drug layer including at least one drug and a substantially biologically inert amphiphilic block copolymer, said amphiphilic block copolymer having a structure that controllably releases up to about 90 percent of at least one of said drugs into said inner layer within about thirty days of being inserted in the blood vessel, said amphiphilic block copolymer including a network including both hydrophobic and hydrophilic polymer chains that can swell in both hydrophobic and hydrophilic solvents, said amphiphilic block copolymer includes macromolecular mers of polyethylene glycol, poly(isobutylene), and poly(dimethylsiloxane), said at least one drug formulated to inhibit stenosis, vascular narrowing, thrombosis or combinations thereof.

Claim 78 (Canceled).

79. (Previously Presented) The stent as defined in claim 77, wherein said inner layer includes collagen.

80. (Currently Amended) The stent as defined in claim ~~78~~ 77, wherein said inner layer includes collagen.

81. (Previously Presented) The stent as defined in claim 77, wherein the drug in said first drug layer includes trapidil and GM-CSF.

82. (Previously Presented) The stent as defined in claim 80, wherein the drug in said first drug layer includes trapidil and GM-CSF.

83. (Previously Presented) The stent as defined in claim 77, including a barrier layer to inhibit release of at least one of said drugs from said first drug layer into said inner layer, said barrier layer including parylene or a derivative thereof.

84. (Previously Presented) The stent as defined in claim 82, including a barrier layer to inhibit release of at least one of said drugs from said first drug layer into said inner layer, said barrier layer including parylene or a derivative thereof.

85. (Previously Presented) The stent as defined in claim 77, wherein said amphiphilic block copolymer having a structure that controllably releases up to about 90 percent of at least one of said drugs from said first drug layer into said inner layer within about six hours of being

connected to the blood vessel.

86. (Previously Presented) The stent as defined in claim 77, including a first penetration barrier layer to inhibit penetration of blood through said stent.

87. (Previously Presented) The stent as defined in claim 84, including a first penetration barrier layer to inhibit penetration of blood through said stent.

88. (Previously Presented) The stent as defined in claim 77, including a second drug layer positioned on said stent.

89. (Previously Presented) The stent as defined in claim 87, including a second drug layer positioned on said stent.

90. (Previously Presented) The stent as defined in claim 88, wherein at least one drug in said second drug layer is not included in said first drug layer.

91. (Previously Presented) The stent as defined in claim 88, including a drug barrier layer to inhibit release of at least one drug from said second drug layer.

92. (Previously Presented) The stent as defined in claim 77, wherein teeth or other indentations that are part of a ratcheting mechanism.

93. (Currently Amended) A method for repairing a blood vessel comprising:

- a. providing a graft for connection to or insertion into a blood vessel, said graft comprising a wall that forms a passageway for blood flow through the graft, a first drug layer at least partially coated on said wall and an inner layer, said inner layer formed of a porous material designed to promote endothelialization, said first drug layer including at least one drug and a flexible and substantially biologically inert amphiphilic block copolymer, said amphiphilic block copolymer including a network including both hydrophobic and hydrophilic polymer chains that can swell in both hydrophobic and hydrophilic solvents, said amphiphilic block copolymer includes macromolecular mers of polyethylene glycol, poly(isobutylene), and poly(dimethylsiloxane), said at least one drug formulated to inhibit stenosis, vascular narrowing, thrombosis or combinations thereof;
- b. connecting said graft to or inserting said graft in the blood vessel; and,
- c. controllably releasing up to about 90 percent of at least one of said drugs into said blood vessel within about thirty days of being connected to or inserted in the blood vessel.

94. (Previously Presented) The method as defined in claim 93, wherein said graft is a stent.

95. (Previously Presented) The method as defined in claim 93, wherein said graft is a vascular graft that includes a flexible wall, said flexible wall includes a biostable fabric material, said biostable fabric material including a material selected from the group consisting of polyester, polytetrafluoroethylene, polyurethane, polysilicones, poly(meth)acrylates, polyalkyl oxides, polyvinyl alcohols, polyalkylene glycols, polyvinyl pyrrolidone or combinations thereof.

Claim 96 (Canceled).

97. (Previously Presented) The method as defined in claim 93, wherein said inner layer includes collagen.

98. (Previously Presented) The method as defined in claim 95, wherein said inner layer includes collagen.

99. (Previously Presented) The method as defined in claim 93, wherein the drug in said first drug layer includes trapidil and GM-CSF.

100. (Previously Presented) The method as defined in claim 98, wherein the drug in said first drug layer includes trapidil and GM-CSF.

101. (Previously Presented) The method as defined in claim 93, including a barrier layer to inhibit release of at least one of said drugs from said first drug layer into said inner layer, said barrier layer including parylene or a derivative thereof.

102. (Previously Presented) The method as defined in claim 100, including a barrier layer to inhibit release of at least one of said drugs from said first drug layer into said inner layer, said barrier layer including parylene or a derivative thereof.

103. (Previously Presented) The method as defined in claim 93, wherein up to about 90 percent of at least one of said drugs is released into said blood vessel within about six hours of being connected to or inserted into the blood vessel.

104. (Previously Presented) The method as defined in claim 102, wherein up to about 90 percent of at least one of said drugs is released into said blood vessel within about six hours of being connected to or inserted into the blood vessel.

105. (Previously Presented) The method as defined in claim 93, wherein said graft includes a first penetration barrier layer to inhibit penetration of blood through said graft.

106. (Previously Presented) The method as defined in claim 104, wherein said graft includes a first penetration barrier layer to inhibit penetration of blood through said graft.

107. (Previously Presented) The method as defined in claim 93, wherein said graft includes a second drug layer.

108. (Previously Presented) The method as defined in claim 104, wherein said graft includes a second drug layer.

109. (Previously Presented) The method as defined in claim 107, including the step of releasing at least one drug from said second drug layer into tissues surrounding said graft.

110. (Previously Presented) The method as defined in claim 107, wherein at least one drug in said second drug layer is not included in said first drug layer.

111. (Previously Presented) The method as defined in claim 107, wherein said graft includes a drug barrier layer to inhibit release of at least one drug from said second drug layer.

112. (Previously Presented) The method as defined in claim 94, wherein said stent includes teeth or other indentations, and including the step of using a ratcheting mechanism to expand said stent in said blood vessel.

113. (Previously Presented) The method as defined in claim 93, wherein at least one of said drugs in said first drug layer is at least partially contained in microparticles of said amphiphilic block copolymer, said microparticles having a size of up to about 10 micrometers.

114. (Currently Amended) The method as defined in claim ~~115~~ 113, wherein said microparticles of said amphiphilic block copolymer are at least partially dispersed in hydrogel.

115. (Previously Presented) The method as defined in claim 93, including the step of administering at least one drug to the patient either orally or intravenously.